

METHOD, SYSTEM, AND PROGRAM FOR RECOVERY FROM A FAILURE IN AN ASYNCHRONOUS DATA COPYING SYSTEM

ABSTRACT

A method of recovery from a data storage system failure in a data storage system having a host computer writing data updates to a local storage controller at a local site. The local controller is associated with a local storage device. The local storage controller is also configured to asynchronously copy the updates to a remote storage controller associated with a remote storage device at a remote site. In addition, the remote storage controller is configured to store a consistent point in time copy of the updates on a backup storage device. The consistent point in time copy is known as a consistency group. Upon detection of a failure associated with the local site, a determination is made whether a group of updates pending for storage on the backup storage device form an intact consistency group. If an intact consistency group has not formed, corrective action may be taken to create an intact consistency group. The recovery method further consists of synchronizing the remote storage device, initiating recovery operations and, upon recovery of the local site, resynchronization of the local storage device and the backup storage device to recovery consistency group without the need for full volume storage copies and while minimizing application downtime.